to all, including those who cannot -- or choose not to -- subscribe to pay services.<sup>48</sup>

The Commission can preserve the sanctity of free, over-the-air television by rejecting auctions as a means of allocating ATV spectrum.

None of this is to say that EIA and the ATV Committee are opposed to auctions. Once today's NTSC broadcasting is phased out, the Commission can and should auction the recovered NTSC channels which -- as many have pointed out -- will raise more revenue than the auction of ATV channels. As Dr. James Carnes, Chief Executive Officer of the David Sarnoff Research Center, explained during the Commission's December *en banc* hearing, ATV spectrum would be unlikely to yield significant revenue at auction because of NTSC interference and the fact that ATV spectrum is not contiguous. If ATV spectrum were used for any services other than those employing the ACATS digital standard, significant interference with NTSC transmissions would result, and free, over-the-air broadcasting would be jeopardized.

As Ralph Gabbard, President of Gray Communications Broadcast Group and Chairman of the Television Board of Directors of the National Association of Broadcasters, recently explained to Congress, only services that comply with the ACATS digital standard will be compatible with NTSC broadcasting:

Under the FCC's plan, the channels that broadcasters will temporarily use to provide ATV service are all in the existing VHF and UHF television bands. These channels have been allocated to television broadcasting for 50 years. They are now vacant because NTSC television service is highly susceptible to interference. This interference can come from signals on the same channel or on adjacent channels or, for UHF stations, even on

<sup>&</sup>lt;sup>48</sup> Remarks of Commissioner Susan Ness -- FCC Digital Television *En Banc* Hearing, MM Docket No. 87-268 (Dec. 12, 1995).

channels further removed. In most larger areas, the FCC has assigned for use all of the channels that can be accommodated without causing unacceptable interference to NTSC service. The Grand Alliance digital television system was crafted specifically to work within the gaps in NTSC channels and provide new service without degrading the existing TV channels. Thus, assigning those channels to broadcasters would maximize the efficient use of the broadcast spectrum. Almost any other conceivable use would be severely hampered by the need to avoid interference with existing TV service.<sup>49</sup>

Mr. Gabbard also explained that ATV spectrum, unlike NTSC spectrum, is not contiguous between geographic regions of the country.<sup>50</sup> Recovered NTSC spectrum would, therefore, yield much higher auction revenues than ATV spectrum because it can be offered in contiguous nationwide blocks and would not interfere with over-the-air broadcasting.

Although broadcasters should not be required to bid at auction for their ATV channels, they should be required to pay reasonable spectrum-usage fees for providing services other than free, over-the-air broadcasting. Those broadcasters that are opposed to usage fees

<sup>&</sup>lt;sup>49</sup> Ralph W. Gabbard, Testimony Before the Senate Commerce, Science & Transportation Committee on Radio Spectrum Policy (Sep. 12, 1995) (emphasis added).

The channels to be used for ATV service cannot readily be used for non-television services. The channels on which the FCC plans to place ATV services are scattered around the dial between existing TV channels. Thus, in each market, the channels that will be used for digital television are different and there are no ATV channels that will be available on a nationwide basis. This alone reduces the value of these channels for nontelevision services since the costs of making transmitters and receivers, particularly mobile equipment, for a wide range of potential channels is substantially greater than for services which have common channel assignments across the country.

are essentially asking for special treatment.<sup>51</sup> EIA and the ATV Committee are unaware of any public policy reasons why broadcasters should be permitted to use valuable spectrum, without charge, to provide subscription services when licensees providing similar competing services are now required to pay for their spectrum.<sup>52</sup>

## V. THE COMMENTING PARTIES AGREE THAT IT WOULD BE PREMATURE FOR THE COMMISSION TO DECIDE NOW WHEN TO TERMINATE NTSC BROADCASTING

Many commenters agree with EIA and the ATV Committee that it would be unproductive (and possibly counterproductive) to set a date certain for the termination of NTSC broadcasting without more information regarding the speed with which ATV penetrates the marketplace.<sup>53</sup> The Commission should therefore remain flexible and not set a date certain for the end of NTSC broadcasting until it has a better idea how quickly the American public makes the transition to ATV. As Chairman Hundt recently pointed out, the Commission should not set an arbitrary cut-off date that could "disenfranchise tens of millions of viewers" that still rely

<sup>&</sup>lt;sup>51</sup> See, e.g., Comments of Association of Independent Television Stations at 14-15; Comments of Association of America's Public Television Stations at 21-22.

The extreme position taken by some parties that broadcasters should not be allowed to use any ATV spectrum for ancillary services should be rejected. See, e.g., Comments of Ameritech New Media Enterprises at 3-5; Motorola Comments at 11-12; Comments of Personal Communications Industry Association at 5-10.

<sup>&</sup>lt;sup>53</sup> See, e.g., MSTV Comments at 27-28; Grand Alliance Comments at 10; Thomson Comments at 6.

on NTSC receivers.<sup>54</sup> Indeed, a premature termination of NTSC broadcasting could create an enormous consumer backlash that would jeopardize ATV's successful acceptance by the public.

Although EIA and the Committee anticipate that ATV receivers will be popular at a very early stage of the transition process, ATV will take time to establish itself in the marketplace. Even after ATV broadcasting is widespread and substantial numbers of consumers own ATV receivers or digital converters, there will remain a large embedded base of NTSC products that will continue to be used with cable and satellite services, as well as with consumer electronics equipment such as camcorders and VCRs. The public interest would not be served by disenfranchising these households.<sup>55</sup> As Stanley Hubbard, Chairman of the United States Satellite Broadcasting Company, stated at the Commission's December *en banc* hearing:

[M]ore than 20 million color television sets are sold each year in the United States and most of these sets are designed to last 15-20 years. It would be impractical, and most likely politically impossible, to tell people that they must either replace their analog TV set with a digital one or buy a decoder of some type in order to use their present sets.<sup>56</sup>

Ninety-eight percent of American households own at least one NTSC television receiver; 87 percent own NTSC-compatible VCRs; and substantial numbers own camcorders and universal remote controls designed to work with existing NTSC television equipment. See EIA Market Research Department (June 1995 figures). In fact, NTSC television receivers have the highest penetration rate of all consumer electronics products. Given the large installed base of NTSC equipment and peripherals, the Commission would be well advised to be flexible in guiding the American public's transition to ATV.

The possible emergence of low-cost converter devices should ameliorate the impact of terminating NTSC, but any prediction as to when these devices will become ubiquitous is subject to substantial uncertainties.

Testimony of Stanley S. Hubbard, Chairman of United States Satellite Broadcasting Company, *En Banc* Hearing, MM Docket No. 87-268, at 5 (Dec. 12, 1995).

The Commission should therefore make clear that it will require the termination of NTSC broadcasting only upon being satisfied that some reasonable, consumer-oriented benchmark has been met, such as when less than a certain percentage of homes rely exclusively on over-the-air NTSC broadcasting.<sup>57</sup>

## VI. THE RECORD DEMONSTRATES THE NEED FOR THE COMMISSION TO ADDRESS THE ROLE OF THE CABLE INDUSTRY IN THE SUCCESSFUL DEPLOYMENT OF ATV

Although the comments filed by cable companies reflect great hostility to the must-carry of ATV signals,<sup>58</sup> the must-carry obligations of cable operators are mandated by statute.<sup>59</sup> Furthermore, the public interest requires the carriage of NTSC and ATV signals by cable systems. As EIA, the ATV Committee and others pointed out in their comments, two-thirds of American homes receive their television programming over cable systems.<sup>60</sup> As a consequence, the success of ATV will require substantial involvement by the cable industry. To ensure this involvement, the Commission should confirm that the cable operators' must-carry

<sup>&</sup>lt;sup>57</sup> See, e.g., Grand Alliance Comments at 10 (NTSC termination date should occur when at least 80 percent of households no longer obtain television service solely from over-the-air NTSC broadcasting); Thomson Comments at 6 (same).

<sup>&</sup>lt;sup>58</sup> See, e.g., Comments of National Cable Television Association at 1-2 [hereinafter "NCTA Comments"]; Comments of Turner Broadcasting System at 3-4; Comments of Tele-Communications, Inc. at 7-13.

Section 614(b)(4)(B) of the Communications Act directs the Commission to "ensure cable carriage of such broadcast signals." 47 U.S.C. § 534(b)(4)(B). A U.S. district court has recently affirmed the constitutionality of the must-carry rules. See Turner Broadcasting v. FCC, 1995 U.S. Dist. LEXIS 18611 (D.D.C. Dec. 12, 1995).

See, e.g., EIA/ATV Committee Comments at 8-9; MSTV Comments at 32. See also Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Second Annual Report, 1995 FCC LEXIS 7901, CS Docket No. 95-61, FCC 95-491, at ¶ 81 (released Dec. 11, 1995).

obligations extend to *both* a broadcast station's ATV and NTSC signals. The simultaneous transmission of NTSC and ATV signals, *as initially broadcast*, will provide consumers with the opportunity to experience the qualitative differences between the two formats and create marketplace incentives to migrate to ATV.<sup>61</sup>

Many commenters also agree that key to the success of ATV is the acceptance by cable operators of the ATV standard adopted by the Commission for over-the-air broadcasting, as they convert their cable systems from analog to digital technology. <sup>62</sup> In their comments, however, the cable operators oppose such a standard. <sup>63</sup> Yet, less than two years ago, the cable industry unambiguously supported a digital transmission standard. In comments that are part of the record in ET Docket No. 93-7, <sup>64</sup> the cable industry joined the consumer electronics industry in affirming the need "'to standardize the system used for digital [cable]

Any alleged burden associated with carrying both ATV and NTSC broadcast signals disappears once a cable system converts to digital. As Dr. James Carnes, Chief Executive Officer of David Sarnoff Research Center, pointed out during the Commission's *en banc* hearing, once a cable system is converted to digital technology, it can carry multiple digital broadcast signals in the same 6 MHz channel it now uses for a single analog NTSC channel. *See also* MSTV Comments at 33 n.39.

<sup>62</sup> See, e.g., Comments of National Association of Broadcasters at 9-10 [hereinafter "NAB Comments"]; Grand Alliance Comments at 18; Zenith Comments at 5; EIA/ATV Committee Comments at 11-13.

<sup>63</sup> See, e.g., NCTA Comments at 17-18; Comments of Tele-Communications, Inc. at 29-31.

See Implementation of Section 17 of the Cable Television Consumer Protection Act of 1992 -- Compatibility Between Cable Systems and Consumer Electronics Equipment, First Report and Order, 9 FCC Rcd 1981, 2004-05 (1994).

transmissions.' "65 The joint cable-consumer electronics industry comments also recognized that "a firm understanding that digital standards will be prescribed is essential to provide assurance to consumers and legislators against a recurrence of the kinds of [cable compatibility] problems that led to the adoption of Section 17" of the Cable Act. 66 The two industries therefore advised the Commission that they were "anxious to move ahead with joint recommendations on digital standards as quickly as possible." 67

The Commission has repeatedly recognized the public interest benefits of having the cable industry support the ATV standard ultimately adopted for over-the-air broadcasting. For example, in 1992, the Commission stated in the *Third Report and Order* in MM Docket No.

We recognize the need to proceed with caution in this area and to ensure that our processes and regulations do not unnecessarily impair the development of new cable technologies and services and of appropriate interfaces between such technologies and services with other media. Notwithstanding these considerations, we find that standards for cable digital transmissions are necessary to avoid future compatibility problems when cable systems use digital transmission methods, and to allow the mass production of economical consumer equipment that is compatible with cable digital services.

Implementation of Section 17 of the Cable Television Consumer Protection Act of 1992 -- Compatibility Between Cable Systems and Consumer Electronics Equipment, First Report and Order, 9 FCC Rcd 1981, 2005 (1994) (emphasis added).

Comments of Cable-Consumer Electronics Compatibility Advisory Group, ET Docket No. 93-7, at 22 (Jan. 25, 1994) (quoting Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992, 8 FCC Rcd 8495, 8501 (1993)).

<sup>&</sup>lt;sup>66</sup> *Id*.

<sup>67</sup> Id. at 23 (emphasis added). Responding to these comments, the Commission found that a digital cable transmission standard is in the public interest:

87-268 that it and the National Cable Television Association ("NCTA") supported ATV compatibility for both broadcast and cable television:

we endorse, as does NCTA, the efforts of the Advisory Committee, through its Field Test Task Force, to ensure that the system selected as the ATV standard performs satisfactorily for both broadcast and cable operations.<sup>68</sup>

Similarly, in the Second Report and Order in MM Docket No. 87-268, the Commission stated:

We agree with NCTA that cable delivery of a quality ATV signal is critical to public acceptance of ATV. We also agree with EIA/ATV Committee that, as a practical matter, any ATV system selected must support ATV carriage over cable systems.<sup>69</sup>

In a speech to the National Cable Television Association, Chairman Hundt not too long ago endorsed the need for a digital cable transmission standard and noted that a haphazard transition from analog to digital technology would create a myriad of problems for consumers. In particular, he called on the cable industry to think about the transition "from the consumer perspective" so as to ensure that "consumers don't have to pay hundreds of extra dollars for a digital receiver, and hundreds more redundant dollars to make the cable connection compatible." EIA and the ATV Committee wholeheartedly concur in Chairman Hundt's analysis of the compatibility issue. The transition to ATV will be unduly complicated, delayed

<sup>&</sup>lt;sup>68</sup> Third Report and Order, 7 FCC Rcd at 6984.

<sup>&</sup>lt;sup>69</sup> Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, Second Report and Order, Further Notice of Proposed Rule Making, 7 FCC Rcd 3340, 3360 (1992) [hereinafter "Second Report and Order"].

<sup>&</sup>lt;sup>70</sup> See Speech of Reed E. Hundt, National Cable Television Association, Dallas, Texas (May 9, 1995).

<sup>&</sup>lt;sup>71</sup> *Id.* at 6.

and made more expensive if consumers and consumer electronics manufacturers must deal with multiple and disparate ATV standards.<sup>72</sup>

As the NAB rightly points out, cable operators should be required to carry ATV signals based on the ATV standard adopted by ACATS for over-the-air broadcasting.<sup>73</sup> Absent such a requirement, cable customers would be burdened with significant and wholly unnecessary costs in transitioning to ATV. To ensure reception of both cable and over-the-air ATV programming, cable customers would be forced to spend extra money on ATV equipment and purchase either (1) an ATV receiver that supports two, rather than one, digital coding formats, or (2) a cable converter box from the cable operator. Furthermore, because the QAM technology<sup>74</sup> that will be used by some cable operators is ambiguously defined and will likely vary from cable system to cable system, equipment manufacturers may not be able to incorporate a cable-specific digital decoding format in their ATV receivers. Thus, if cable operators are permitted to develop a digital decoding format based on QAM -- to which EIA and the ATV Committee have no objection -- QAM must be more clearly defined and standardized across all

See NAB Comments at 10 ("Without common standards, cable-ready ATV sets would need to be capable of receiving and decoding two (or more) digital transmission formats. The attendant increased cost and complexity of such an arrangement would effectively prevent digital cable-ready ATV receivers from achieving prevalence in the marketplace, if developed and marketed at all."); Testimony of Edward D. Horowitz, Senior Vice President, Viacom, Inc., En Banc Hearing, MM Docket No. 87-268, at 4 (Dec. 12, 1995) ("[T]he Commission should safeguard against non-standard physical interfaces for external connection (e.g., a jack) to an antenna or cable feed. Consumers would be well served by the availability of a completely interoperable set-top box, capable of inputting all of their sources of information and entertainment programming or data.").

<sup>&</sup>lt;sup>73</sup> See NAB Comments at 9-10.

<sup>&</sup>lt;sup>74</sup> "QAM" is the acronym for Quadrature Amplitude Modulation.

cable systems so that equipment manufacturers can incorporate it in their ATV receivers on an economical basis.

As EIA and the ATV Committee explained in their initial comments, the Commission can facilitate the introduction of ATV by requiring the cable industry to (1) support the ATV standard approved by ACATS for over-the-air broadcasting, (2) establish a digital line 21 equivalent, and (3) define more precisely the QAM technology expected to be used by digital cable systems.<sup>75</sup>

A number of parties argue in their comments that, because the Commission once declined to require satellite television services to support the ATV standard for terrestrial broadcasters, <sup>76</sup> the Commission should not now require cable systems to comply with that standard. <sup>77</sup> Apart from the fact that the Commission has already expressly found cable's support of the ATV standard to be in the public interest, these arguments ignore the Commission's prior finding that satellites "transmit in a different operating environment, one with bandwidth requirements and interference problems different from those experienced in terrestrial broadcasting." <sup>78</sup> Moreover, the Commission's 1992 ruling was predicated on a marketplace in which cable systems and satellites played very different roles in video distribution. In 1992, few satellites delivered programming directly to household television sets. Rather, satellites acted as middlemen that transmitted programming from one broadcaster to

<sup>&</sup>lt;sup>75</sup> See EIA/ATV Committee Comments at 11-13.

<sup>&</sup>lt;sup>76</sup> See Second Report and Order, 7 FCC Rcd at 3361.

<sup>&</sup>lt;sup>77</sup> See, e.g., Testimony of Edward Grebow, President of Tele-TV Systems, En Banc Hearing, MM Docket No. 87-268, at 10 (Dec. 12, 1995).

<sup>&</sup>lt;sup>78</sup> Second Report and Order, 7 FCC Rcd at 3361.

another; broadcasters retransmitted the programming to consumers.<sup>79</sup> By contrast, cable systems have always delivered programming directly to individual households.<sup>80</sup> Thus, the cable industry's failure to support the ACATS standard could threaten the success of ATV.

## VII. <u>CONCLUSION</u>

For all of the reasons set forth above and in their initial comments, EIA and the ATV Committee urge the Commission to adopt rules that will promote the ubiquitous availability of HDTV-driven ATV. In particular, the Commission should conclude that: (1) broadcasters should transmit a reasonable minimum amount of HDTV programming on their ATV channels; (2) technical standards for television receivers are unnecessary and should not be prescribed; (3) initial eligibility for ATV channels should be limited to incumbent broadcasters; (4) the determination when to phase out NTSC broadcasting should be deferred; (5) the must-carry obligations of cable operators extend to both ATV and NTSC signals; (6) cable operators should be required to support the ATV standard adopted for over-the-air broadcasting; (7) after NTSC

<sup>&</sup>lt;sup>79</sup> See id. at 3361 n.223 ("Satellite distribution need not use the same transmission format as terrestrial ATV in order for terrestrial broadcast stations to receive and retransmit such signals, provided that the same originating format is used.") (emphasis added).

Moreover, it is by no means clear that the Commission would rule the same way today, given the tremendous changes that have taken place in the satellite marketplace. Since 1992, a growing number of households have begun receiving their television programming via direct broadcast satellites ("DBS"). By contrast, when the Commission first considered satellite compatibility with broadcast ATV in 1992, the number of DBS subscribers was *de minimis*.

broadcasting is terminated, NTSC spectrum should be promptly recovered and reused; (8) reasonable ATV application and construction deadlines should be established for broadcasters; and (9) broadcasters should be prohibited from bundling ATV equipment with transmission service.

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January 22, 1996

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I, Joyce Fleming, hereby certify that copies of the foregoing Reply Comments of The Electronic Industries Association and the Advanced Television Committee, were served by hand or by First-Class United States mail, postage prepaid, upon the parties appearing on the attached service list this 22nd day of January, 1996.

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